



**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY**  
WASHINGTON, D.C. 20460

APR 20 2017

Stuart Kirkham Cole, Ph.D., P.E.  
2797 Jonas Profit Trail  
Williamsburg, VA 23185

OFFICE OF  
WATER

Dear Dr. Cole,

Thank you for your letter dated March 8, 2017, to the U.S. Environmental Protection Agency regarding the Sustainable Water Initiative for Tomorrow. We appreciate the opportunity to offer this response. You express concerns about an injection well that will be part of the SWIFT project in Hampton Roads Sanitation District and request EPA assistance.

The EPA's Underground Injection Control (UIC) program has authority under the Safe Drinking Water Act to regulate injection wells such as the one you refer to in HRSD. Under the Safe Drinking Water Act, the EPA is responsible for protecting public health by preventing injection wells from contaminating underground sources of drinking water. In some states, the agency may grant primacy for oversight of the UIC program to the state, but in Virginia, the EPA retains primacy. As you note, this means that the agency is responsible for determinations related to injection at HRSD rather than the Virginia Department of Health.

The agency is aware of the SWIFT project and is in communications with HRSD as they move forward in their planning. However, as of this time, HRSD has not yet officially requested authorization for well operation. We expect the HRSD to submit the required UIC inventory information for a test injection well in the near future. We understand that this information will include the results of an ongoing pilot advanced wastewater treatment system evaluation, an analysis of the compatibility of injected fluid with aquifer water quality, construction details of the pilot recharge well, a complete sampling/analysis and reporting plan, a description of the monitoring well network and a comprehensive assessment of any potential for the pilot aquifer recharge well to adversely impact underground sources of drinking water.

When the information is received, the agency will evaluate it to ensure that the well can be operated without endangering the underground source of drinking water. If that determination is made, EPA will authorize the well. Note that the EPA's determinations related to injection reflect the potential for endangerment of the underground source of drinking water. Other factors such as cost are not considered in the EPA's decisions.

The project will begin with a pilot or demonstration phase. At this point, an authorization would be only for a single aquifer recharge well. A full scale project will not be approved until after this well has been operated to allow for a more informed UIC permitting decision and public participation process to ensure drinking water protection.

EPA supports efforts to use injection well technology for beneficial purposes such as those in SWIFT, but it is our responsibility to ensure that these activities are conducted without harm to underground

sources of drinking water. We appreciate your concern about protecting your drinking water aquifer. Please direct all correspondence and inquiries to Mark Nelson in EPA's Region 3 office in Wheeling, WV, at 304-234-0286.

Sincerely,

A handwritten signature in cursive script, appearing to read "Holly Green".

Holly Green, Chief  
Prevention Branch  
Drinking Water Protection Division  
Office of Ground Water and Drinking Water